Abstract

A binary mask and method for improving the aerial image and mask error enhancement factor (MEEF) of binary masks. A phase edge darkening binary mask is provided which has quartz etched, preferably at a depth which corresponds to a phase shift of 180 degrees. A method of manufacturing a phase edge darkening binary mask is also provided, where the method consists of changing the phase of the layout background by etching to take advantage of the phase edge darkening as a result of light leakage through chrome.